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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,046	05/22/2001	John J. Light	10559-455001	8351

7590 11/03/2005

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EXAMINER	
KE, PENG	

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/863,046	LIGHT ET AL.	
	Examiner	Art Unit	
	Peng Ke	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to communications: Amendment, filed on 8/23/05.

This action is made final

Claims 1-24 are pending in this application. Claims 1, 9, and 17 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.Claims 3-5, 8, 11-13, 16, 19-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956.

Claims 1- 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956 in view of Cheng US-6396,509.

As per claim 1, Matsuda teaches a method of selecting a target object in a virtual three-dimensional space, comprising:

identifying objects, including the target object, in the virtual three-dimensional space (Fig. 27; col. 4, lines 22-23).

Matsuda does not specifically teach the method of determining distances between the objects and a point in the virtual three-dimensional space or the prioritizing of the objects based

on distances and identities of the objects and then selecting the target object from among the objects based on the priority assigned to the objects.

However, Cheng teaches the method of determining distances between the objects and a point in the virtual three-dimensional space or the prioritizing of the objects based on distances and identities of the objects and then selecting the target object from among the objects based on priority (*calculating distance between avatars*) (col. 7, lines 63-col. 8, lines 14, column 26, lines 34-40). It would have been obvious to combine the teaching of Matsuda with Cheng's methods of determining distances and assigning priorities in order to create a method in which distance information between objects is maintained for tracking purposes and selection purposes based on selectivity/priority.

As per claims 3 and 4, Matsuda and Cheng teaches method as in claims 1 and 2. Cheng further teaches wherein prioritizing comprises assigning a higher priority to the non-link objects than to the link objects if the distances meet a predetermined criterion or assigning higher priority to the link object if the link object is closer to the point than a non-link object by a predetermined distance. (col. 7, lines 63-col. 8, lines 14)

As per claim 2, Matsuda teaches the method wherein the objects comprise one or more of a link object (anchor) and non-link object (col. 5, lines 41-52).

As per claim 6, Matsuda teaches the method wherein identifying comprises distinguishing between a link object and a non-link object (anchor objects vs. non-anchor objects) (Fig. 35; col. 37, lines 57-67).

As per claim 7, Matsuda teaches the method further comprising: receiving coordinates based on a user input; and locating the objects in the virtual three-dimensional space based on the coordinates (*detailed coordinate value information*) (Fig. 32; col. 33, lines 39-56).

As per claim 8, Matsuda and Cheng teach the method as in claim 1. Cheng further teaches wherein determining the distances comprises obtaining differences between coordinates in the virtual three-dimensional space for the objects and coordinates in the virtual three-dimensional space for the point. (col. 33, lines 34-40)

As per claims 9-12, 14-16, 17-20, and 22-24 they are the apparatus and article claims of claims 1-4, and 6 -8 and rejected on the same basis.

As per claim 5, Matsuda does not teach the method as in claim 1, wherein the predetermined distance comprises 0x1000000. However, official notice is taken that fixing predetermined distances of objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to fix the distance between linked and non-linked objects in order to for objects to be prioritized and selected.

As per claims 13 and 21 are the apparatus and article claims of claim 5 and are rejected on the same basis.

Response to Argument

Applicant's arguments filed on 8/23/05 have been fully considered but they are not persuasive.

Applicant's arguments focused on the following:

A) There is no motivation to combine Matsuda with Cheng.

A) Examiner disagrees. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Cheng provide a reason to combine his method of assigning priority with another virtual three-dimensional program, (column 3, lines 14-30) and that is to provide user with a system that supports intentional interaction and spontaneous interaction at the same time.

B) Applicant argues that Cheng fails to teach prioritizing of the objects based on distance and identities of the object and then selecting the target object from among the object based on priority.

B) Examiner disagrees. Cheng teaches selecting the target object based on its priority. (column 7 lines 60-lines 14) The object's priority is determined in part by the relationship between "two spaces" where the two avatars reside. (column 8, lines 12-14) Cheng further explained the relationship between priority and distance by stating that priority is determined by

parameters that include "distance between (i) the participant's avatar A and (ii) another object B resident in the attention space associated with avatar A..." (column 26, lines 34-40)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571) 272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peng Ke

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